

changed; his general health had suffered; had lost his high spirits and was very irritable; had a diarrhœa; was greatly emaciated; the ossific depositions had, in some respects, changed their situations; the sterno-cleido mastoideus muscle had become free, and the head returned to its erect position; many of the tubercles of the back had been absorbed, and others formed in different places. Bony depositions had taken place also in the muscles about the trochanter major, particularly on the right side. He was compelled to lie in bed, for the least movement produced excruciating pain. A large collection of matter formed in the thigh near the joint, which when discharged afforded some relief; but the constant pressure on the bony tubercles on the back, caused extensive sloughing, and after three weeks of great agony he expired. The body was partially examined twelve hours after death. The glands of the mesentery were enlarged; no ossific matter in the vascular system, but it seemed to be confined entirely to the muscular tissue. The parts within the abdomen and thorax appeared to be healthy. The pectoralis major and minor muscles were united into one, and attached to the ribs by solid bone. During this part of the dissection a large abscess was opened in each side, containing about six ounces of pus; the tendinous parts of the muscles were not affected. The muscles of the back were all more or less in the same condition. Specimens of the latissimus dorsi, longissimus dorsi, subscapularis and pectoralis muscles, are preserved in the museum of Dr. Rogers. In several instances, spicula of bone projected from the muscles one or two inches; and no doubt from the irritation they occasioned, abscesses were formed.

New York, November 9th, 1853.

ART. X. *On the Iodo-Hydrargyrate of Potassium; its Chemical History and Therapeutical Uses.* By WILLIAM CHANNING, M. D. of New York.

THAT the universe is under the government of laws always harmonious, is a truth maintained by the pagan as well as the christian philosopher. All admit that the phenomena of nature can never be incongruous; but, that every new *truth*, however anomalous at first it may appear in view of those already acknowledged, has its proper place in a grand classification, yet but imperfectly understood. This classification, so far as ascertained, constitutes all that is known of

nature's laws; presenting as it does, in a comprehensive form, the various series of phenomena as yet subjected to the scrutiny of philosophical observation. Hence, in examining the validity of a plausible discovery, it is a primary requisite to its admission, indeed indispensable to its claim upon our least consideration, that it offer no *contradiction to facts* which the experience of ages has concurred to establish. But the human mind is prone to substitute hypotheses for facts, and to rest upon the deductions of ingenious speculation as upon indisputable truths. Thus, though the genius of a Bacon has broken "the spell of the mighty Enchanter of Stagira," the reasonings of the theorist, which to be legitimate must be strictly inductive, are still too often perverted by the visions of scholastic philosophy; and the verity of new positions is tested by criteria false as the dreams which gave them birth.

It is but to repeat a truism, to say that every genuine discovery is a certain advance beyond all past observations; and yet, forsooth, because its admission may perchance demand simply a *new classification of ascertained phenomena*, how often do we hear from the speculative dreamer whose cherished hypotheses are in danger, reiterated allegations that the discoverer aims at nothing less than *the subversion of established truths*. The traveller who asserted to an eastern potentate that he had seen water so hard that men walked upon it, roused in the bosom of the Asiatic, (whose conceptions could embrace nothing beyond the narrow limits of his own experience,) a fanatical spirit not to be appeased but with the blood of the *daring innovator*. An equally striking illustration of the power with which early imbibed opinions, however untenable, cling to the mind, and effectually preclude the most palpable evidence, is thus noticed by the discriminating author of "*Essays on the Pursuit of Truth*."

"A modern writer in his travels through Mesopotamia, relates that at Orfah, (the ancient Ur of the Chaldees,) the river and the fish in it are regarded as sacred to Abraham; and the inhabitants firmly believe, that if any of the fish were caught, no process of cooking could make any impression on their bodies. Here is a notion which any one might at once put to the test by direct trial; a fact, which they have only to stretch out their hands to verify or disprove; yet so thoroughly preoccupied are the minds of the people by the prejudice instilled in early infancy; such awe do they feel in relation to it, that they have not the slightest suspicion of its absurdity; and would think it profane to attempt to submit it to the ordeal of actual experiment."

These general remarks premised, the following facts and reasonings are submitted to the consideration of an enlightened and liberal profession, with the hope that their legitimacy will be tried before no other than the tribunal of impartial experience.

A case of severe affection of the lungs, of several months standing, which came under my care in February, 1832, assumed a few weeks afterwards, a character so serious as to destroy all hopes of recovery, unless by some new expedient the progress of disease should be speedily arrested.

Having already put into requisition unavailingly, the various resources of art sanctioned by respectable authorities, in the desperate circumstances to which my patient seemed reduced, I resolved to make trial of one of the iodides of mercury; medicines which, combining in a remarkable manner the active properties of their energetic elements, had frequently been a favourite subject of reflection, and (for reasons unnecessary here to particularize,) had to my mind promised much for cases of chronic pulmonary disease.

“Both these compounds,” says professor TURNER, “are insoluble in pure water, but are dissolved by a solution of the hydriodate of potassa.” They are both, and especially the deutiodide, soluble also in alcohol. But, as I had repeatedly experienced since the suggestions of LUGOL, the decided advantages of the hydriodate of potassa over alcohol as a solvent for the exhibition of iodine, it was adopted, with similar views in this instance, for the deutiodide of mercury, the more soluble of these mercurial compounds.

In thus preparing this medicine for exhibition, the physical changes which occurred were too remarkable to escape observation. I could not but be struck at once with the rapid disappearance of the brilliant red of the iodide of mercury, and the conversion to a straw colour of the clear colourless solution of the hydriodate of potassa, as the former was gradually added to the latter. Subsequently the mild taste of this solution of the deutiodide of mercury compared with its solution in alcohol, was a circumstance scarcely less likely to attract attention. At length, when on trial of their respective effects on the human system, a corresponding difference in the mildness of their action was manifest, the inference was hardly to be resisted, that in this preparation the hydriodate of potassa acted a more important part than that of a mere solvent; or that in fulfilling this office, new affinities were developed, and new combinations formed worthy of investigation.

To determine this point more satisfactorily, a solution of the two iodides of mercury and potassium, at my request, was slowly evaporated by Mr. G. CULTON, operative chemist of this city, when beautiful prismatic needle-form crystals appeared of a bright straw colour, so deliquescent as to be maintained only in a very dry atmosphere, and perfectly soluble in water and alcohol in less than one-

third their weight; thus demonstrating the validity of the inference above stated, and establishing the existence in this combination of a definite compound, a new salt, not yet adverted to by any chemical work published in this country.

On referring to foreign publications, it appeared from the "*Annales de Chimie*," that this with other new salts had been discovered by Mr. P. A. de BOSSDORF of the University of Finland, in 1826, and subsequently noticed in an interesting essay of his, originally published in the "*Annalen der Physik*;" maintaining the position that chlorine, iodine, &c. like oxygen, enter into combinations, forming both acids and bases; that thus, the chloride of mercury unites with the chloride of sodium in definite proportions, the former as an acid, and the latter as an alkaline base; constituting, (according to the nomenclature harmonizing with this theory,) chloro-hydrargyrate of sodium.

In conformity with these views, (now adopted by some of the most eminent chemists of Europe,) the salt under consideration is noticed by its discoverer under the appellation of "iodo-hydrargyrate of potassium;" and without touching upon its analysis, his remarks are limited to a simple statement of the mode of its preparation, and its appearance when prepared, as one of the many illustrations furnished by his experiments in support of the chemical doctrine he would uphold. But as this preparation soon after my acquaintance with it developed medicinal powers of no ordinary importance, a more particular examination of its constitution became a matter of interest. The following is the result of such an examination, sufficiently accurate for practical purposes.

By experiment I first ascertained that a solution of eight grains of the pure iodide of potassium in a small portion of water, (10 or 15 minims,) would combine with a fraction less than eleven grains of the deutiodide of mercury, maintaining the combination in solution, diluted with water or alcohol to any extent. If more than eleven grains of the deutiodide were added, although a small excess was dissolved in the concentrated solution, on diluting with water, it was promptly precipitated.

Now as 10.9 : 8 :: 450 : 330, or

1 atom deutiodide of mercury.....	450	} are as {	10.9 to 8.
2 atoms iodide of potassium.....	330		
Add to these per estimate—			
4 atoms combining water	36		0.9
	<hr/> 816		<hr/> grs. 19.8

392 Channing on the Iodo-Hydrargyrate of Potassium.

Giving as the constitution of the iodo-hydrargyrate of potassium,	{	4 atoms iodine	500
		1 atom mercury	200
		2 atoms potassium	80
		4 atoms water	36
		<hr/>	
		Atomic weight	816

From this statement it is evident, that in preparing this salt for exhibition, the labour of crystallizing it in order to obtain a solution of a definite strength is wholly unnecessary; inasmuch as a solution, combining a fraction more than eight grains of the iodide of potassium with eleven grains of the iodide of mercury, may be used as containing twenty grains of the iodo-hydrargyrate of potassium, the difference, if any, being too small to merit consideration.

But if it be desirable to obtain the preparation in a crystallized form, it is important that the definite proportions of the two iodides be observed, particularly that there be no excess of the iodide of mercury. For the *saturated solution of eight grains* of the iodide of potassium will dissolve and enter into combination with more than *thirteen grains* of the iodide of mercury, forming similar crystals soluble in alcohol, but in water precipitating more than two grains of the iodide of mercury. Hence, by dissolving a suspected preparation in twenty or thirty times its weight of pure water, any excess of the iodide of mercury is immediately detected.

The *substances incompatible* with this compound, are the mineral acids, the fixed and volatile alkalis, with their carbonates, acetate of lead, nitrate of silver, sulphuret of potassa, and all preparations containing free chlorine. There appears to be no reaction exerted upon it by the tincture of galls. Its administration in metallic vessels should be avoided.

In reference to the case adverted to, as affording the first illustration of the medicinal powers of this preparation, it occurred in the person of S. L. aged thirty-three, a blacksmith, of a sanguine temperament and an athletic frame, to whom I was called the last week of February, 1832.

He stated that in July, seven months preceding, he was attacked with a severe cold and cough, which had been uninterrupted to that time. He complained of acute pain in the right side, about the middle of the sixth and seventh ribs, much aggravated by full inspiration, and of cough harassing him night and day; expectoration was mucous and inconsiderable; pulse tense and frequent; flesh and strength much reduced; he was feverish in the afternoon, in free perspiration at night, and in the morning chilly and enfeebled.

By means of local bleeding, revulsives, mild expectorants, and demulcents, his symptoms put on so favourable an aspect as to promise a speedy recovery. The pulse was reduced and softened; the cough greatly mitigated; expectoration loosened; pain removed, and strength daily increasing. Improvement thus continued until March 20th, when I found that in consequence of imprudent exposure two days before, he had relapsed. His cough had become urgent; pulse accelerated; skin heated and respiration oppressed. The usual remedies were resorted to with beneficial effects, but in a few days purulent expectoration, hectic exacerbations, profuse night-sweats, &c. ensued. From this period his disease advanced with but temporary meliorations, in defiance of the various remedial measures approved in such cases, presenting the following symptoms on

Saturday, noon, April 21st.—The cough is frequent and expectoration difficult; the sputa muco-purulent, about half a pint daily; the pulse which has been gradually rising, now beats 105 to the minute, quick and feeble; the surface of the tongue resembles raw meat, and the appetite is insatiable; colliquative sweats and diarrhœa; the latter having commenced two weeks since, is now urgent. His nights are almost sleepless, and his strength and flesh so rapidly wasting, that the powers of life must soon fail, unless some means be promptly discovered to overcome these threatening symptoms; especially as his friends state that his father, brother, and other members of the family “have died in the same way,” to use their own language, “of hasty consumption;” and that he has been several years addicted to the excessive use of ardent spirits, by which his constitution appears seriously impaired.

Sunday, noon, April 22d.—R. Deutiod. hydrarg. gr. iv.; Hydriod. potass. ℥i.; Aq. distil. ʒi. M. ft. sol.—Take five drops in water three times a day.

Tuesday, 12 M. third day under this treatment.—Pulse 102; expectoration more free, and otherwise there is apparent improvement.

Thursday, fifth day, M.—Pulse 100; diarrhœa checked; tongue looks better, and other symptoms meliorated. Increase the dose to six-drops.

Saturday, M. seventh day.—Pulse 96; sputa lessened and less viscid; night sweats and diarrhœa have ceased; tongue appears nearly natural. Increase the dose one drop daily.

Wednesday, eleventh day.—Pulse 90; continues to improve; doses of ten drops three times a day are now taken without morbid effects.

Thursday, twelfth day.—Pulse 96; patient has just taken a hearty dinner of *fried fish*, impelled by his still uncontrollable appetite.

Friday, thirteenth day.—Pulse 87.

Saturday, fourteenth day.—Pulse 85.

Sunday, fifteenth day.—Pulse 82.

Monday, sixteenth day.—Pulse 96, and irregular; patient is in bed, complaining of nausea, and has been vomiting; sputa mucous.

Tuesday, seventeenth day.—Pulse 102, quick, and with a double beat at irregular intervals; cough is worse; sputa mucous, and *very frothy*; skin hot; patient is complaining of thirst and head-ache. Suspend the medicine.

Wednesday, eighteenth day.—Pulse 72, soft and full; sputa, (about one-eighth of a pint in last twenty-four hours,) no longer frothy, but sero-purulent. Patient has had a sweating sleepless night, but a refreshing sleep this morning, and says he now feels much better in all respects. Resume the solution five drops ter die.

Thursday, nineteenth day.—Pulse 90, quick and irregular; has slept well, though the cough this morning is troublesome, and the sputa are *mucous and frothy*. Suspend the medicine.

Friday, twentieth day.—Pulse 78, soft and full; sputa, (but about $\bar{5}$ i. since last evening,) muco-purulent and *not frothy*; cough is evidently subsiding; a small ulcer has appeared on the tip of the tongue, and an eruption about the lips; appetite being no longer preternatural, the simple diet prescribed is cheerfully observed. Strength is much increased, and general appearance improved. No medicine, unless the cough at night requires a small opiate, as at times.

Saturday, twenty-first day, 9 A. M.—Pulse 72.—12 o'clock, (with Professor MACNEVIN.) Pulse 77, after a walk of a mile, which is borne with little fatigue; cough and expectoration slight. (Dr. M. thinks he will recover.)

Sunday, twenty-second day, 3 P. M.—Pulse 84; other symptoms as yesterday.

May 14th. Monday, twenty-third day.—Pulse 85; cough and expectoration during the night and morning somewhat increased; strength not improved the last two days. No medicine has been taken the four days past, excepting an occasional opiate at night. R. Iod. hydrarg. potass. gr. j.; S. V. T. $\bar{3}$ j. M. ft. sul. Take ten drops three times a day.

Tuesday, twenty-fourth day, 4 P. M.—Pulse 85; sputa but a small quantity; last night slept well with no cough. Continue medicine.

Wednesday, twenty-fifth day, 2 P. M.—Pulse 85; during the night and morning, has had five copious, acrid, bilious evacuations, attended by sharp cutting pains through the bowels, with perspiration. Early this morning vomited a yellow bitter fluid, but now feels very

well, having coughed but little and that without expectoration. Continued medicine.

Thursday, twenty-sixth day, M.—Pulse 87; has slept well; expectoration (purulent) recurred this morning, in small quantity; other symptoms same.

Friday, twenty-seventh day, M.—Pulse 95; expectoration in greater quantity; patient has slept well. Increase the medicine to gut. xx. twice a day.

Saturday, twenty-eighth day, 10 A. M.—Pulse 80.—5 P. M. 76.

Sunday, twenty-ninth day, 10 A. M.—Pulse 84.—5 P. M. 82—showing the continued cessation of the evening exacerbations.

Monday, thirtieth day, 1 P. M.—Pulse 96; expectoration lessened. During the night and this morning, has had ten or twelve alvine evacuations similar to those five days since, and with similar pains in the bowels. Increase the doses gradually.

Tuesday, thirty-first day, 1 P. M.—Pulse 93; yesterday afternoon a slight evacuation, since which bowels have been easy, and are to-day regular. Patient says he feels well, and almost strong enough to work.

Wednesday, thirty-second day, 2 P. M.—Pulse 89, regular and soft; sputa in very small quantity, and gradually losing their purulent appearance. Patient has slept the whole night without cough.

May 24th. Thursday, thirty-third day.—Pulse 76, soft, full, and of nearly natural strength; cough very rare, and expectoration easy; sputa still purulent, but occurring only on rising in the morning, to the amount of a tea-spoonful; bowels are regularly moved with healthy evacuations. Patient eats and sleeps much as when in his best health, and walks two or three miles a day with no more than ordinary fatigue.

At this time, as he was about to leave town, I parted with him, directing the continuance of the solution, (of which he is taking twenty-five drops twice a day,) until the cough and expectoration should entirely cease. His family soon afterwards informed me that these symptoms had totally disappeared; since which, though my professional relation had terminated, I have from time to time, up to September last, a period of fifteen months, been gratified with the intelligence of his continued freedom from pulmonary complaint, with the exception of considerable dyspnoea, or shortness of breath, produced whenever more than moderate exercise has been attempted.

Anxious to test still further the therapeutical properties of the medicine which had effected so much for the case described, on the 16th of May, I assumed the treatment of a young female, (S. B. aged

twenty,) of a delicate constitution, in the last stage of tubercular phthisis, successively abandoned by several respectable practitioners as past all relief. The limits of this memoir preclude all but a brief abstract of the case, from notes at the bed-side.

At 10 A. M. when the remedy was with difficulty first administered, the friends of the patient had for five hours preceding expected each to be her last. Indeed, with a countenance hippocratic, respiration oppressed to the extreme, and a feeble, fluttering, countless pulse, to all she appeared moribund. Under the operation of this agent, repeated from time to time, the lungs were gradually unloaded of their accumulated secretions, expectoration became free and less morbid, and the pulse acquired steadiness and strength until the fourth day, when reaction was completely established. In the course of the treatment, appetite long lost was restored, constipation of the bowels obviated, torpor of the urinary organs and their morbid secretions corrected, troublesome ulceration of the hips healed, and, though the preternatural excitement of the pulse was but little reduced, periodical exacerbations were no longer apparent.

On the 12th, the 14th, and the 17th days respectively of the treatment, collapse recurred after temporary suspension of the medicine, and by its instrumentality alone exhibited *pro re nata*, on each of these occasions reaction was complete.* Life was thus prolonged to the evening of June 2d, the 18th day, the last five of which were passed without even the aid of an opiate, the only accessory before resorted to.

Autopsical examination corroborated the deductions from the vital changes under the treatment, and afforded in the devastation of disease pervading the lungs, incontestible evidence of the utter hopelessness of the case.

A third case, in the last stage of phthisis, (Mrs. S. aged twenty-three,) was placed under my charge by a professional friend, who though firmly convinced that medicine could scarcely retard its rapid progress to a fatal termination, continued his attendance noting the extraordinary alterations following the exhibition of this new agent—commencing May 29th. As in the preceding instances, its effects were here unequivocally displayed upon the urgent cough, the viscid expectoration, the periodical excitement, the preternatural condition of the skin, and the abrasion of the hip—upon the florid tongue, the sore throat, the voracious appetite, the exhausting diarrhoea, and the

* The collapse of the 17th day was so extreme that there was involuntary fecal evacuation.

morbid urinary secretions—both alvine and urinary evacuations of the most healthy appearance being induced and maintained to the hour of death. Equally well-marked was its influence in the establishment of reaction, upon the supervention of extreme collapse on the fifteenth day of the treatment. Besides the reiteration of these attestations to the valuable properties before exhibited, in this case first clearly appeared the evidence of still more comprehensive powers, in the entire removal, through urinary and cutaneous evacuations, of extensive oedema of one of the lower extremities in the first forty-eight hours of its administration.

The case terminated on the nineteenth day. Autopsy not permitted.

Respecting the doses of this preparation employed in the cases we have presented, it is important here to state some particulars.

In the case of Mr. L. if the solution with which the treatment was commenced, be estimated as equivalent to an aqueous solution of eight grains of the proper compound to the ounce, then fifteen drops, the quantity daily used, were equal to a quarter grain of the salt. This was gradually increased to a half grain per diem, when, on the seventeenth day, excessive action called for its suspension. Resumed the day following in half the doses; twenty-four hours use again required its suspension. After four days without medicine, a solution was substituted, of the recently-discovered definite compound iodo-hydrarg. potas. gr. j. in dilute alcohol, $\bar{5}j.$ of which the drops are but half minims. Hence the three doses of the twenty-third day, (gut. xxx.) amount to $\frac{1}{32}$ of a grain, and these were increased to $\frac{1}{20}$ th of a grain per diem, with which the recovery was completed.

In the treatment of Miss B. (so delicately organized, and peculiarly sensitive in her reduced state,) the morbid phenomena from an excess of the remedy, were to be anticipated in doses much less than in the case first stated. Accordingly, commencing the treatment with $\frac{1}{32}$ th of a grain, and slowly augmenting to $\frac{1}{12}$ th of a grain per diem in two doses: on the eleventh day decisive evidence of excessive action induced its suspension for thirty-six hours. On resuming it in the original quantity of $\frac{1}{32}$ th of a grain daily, renewed excitement the following morning again demanded a suspension; after which, as if susceptibility to its influence were constantly enhanced, reduction after reduction was called for, from $\frac{1}{32}$ th to $\frac{1}{20}$ th, and even $\frac{1}{40}$ th of a grain per diem; and before the case terminated, much less than this last quantity through the day evinced the most indubitable effects.

The experience of the third case not only confirmed that of the

former in respect to the efficiency of exceedingly diminished doses, but proved what was perhaps of no less importance, that very considerable ones might be taken, under some circumstances, without disagreeable consequences—more than three grains of the salt during protracted collapse having been administered in fifteen hours, in gradually increased doses, with no other than the intended effect apparent, excepting the production of three copious alvine discharges, closely resembling in all respects those of a healthy child. As corroborating this testimony to its mild action upon the human economy in any moderate quantity, an experiment of the writer upon himself may be here subjoined. In this, a grain of the salt in half a pint of water was taken at a single dose with the only effects perceptible of a strong metallic taste and considerable irritation of the stomach, neither continuing after five or six hours.

In reviewing the history of these cases, the prominent effects clearly traceable to the recuperative powers of the agent employed, may be summed up under the following heads, as they were manifested in the different functions of the system, viz. 1st. *Upon the organs of circulation*—by the subsidence of the pulse in the first case, as a natural concomitant of the subsidence of disease; and in the second and third cases, as a diffusible stimulant, establishing reaction even in circumstances of collapse apparently desperate.

2d. *Upon the lungs*; in each of the three cases, by the progressive improvement of their secretions, and of the cough and the expectoration.

3d. *Upon the alimentary canal* and its appending glandular apparatus—by subduing in every instance the morbid action, and restoring the healthy secretions of the whole surface concerned in the functions of digestion and defecation.

4th. *Upon the urinary organs*; in the last two cases, by the revival of their activity, and the renewal and continuance of their natural secretions to the last.

5th. *Upon the skin and cellular tissue*; by the sensible changes in the secretions, exhalations, temperature, &c. particularly indicated in the last two cases by the cicatrizing of superficial ulcerations.

6th. *Upon the absorbent and exhalent systems*; 1st, of the mucous surfaces, by the effects already noticed upon the functions of the lungs, of the alimentary canal, and of the urinary organs; and 2d, of the cutaneous surface and cellular tissue, by those adverted to under this head; and particularly upon the lymphatics of the latter, by the prompt disappearance of the fluid there effused.

Or, to express these effects still more comprehensively, *they were displayed in diffusing excitement and equalizing circulation even through the minutest vessels engaged in the functions appropriated to the absorbent and exhalent systems, to the cellular, the mucous, and the dermoid tissues.*

The impression produced by these cases, (the varying phenomena of which had, with the most intense interest, been vigilantly observed,) upon the mind of one whose pathological opinions were early imbued with the doctrines of the physiological school, can be properly estimated only by those familiar with these doctrines; for they alone can appreciate the important and multiplied bearings, thus opened to his view, of such results upon medical practice, if *experience* should ratify the conclusions to which they so emphatically pointed.

Confiding his deductions to a few professional friends, he lost no opportunity afforded in his or their practice to subject their validity to this only decisive test. Wherever disease presented itself, simple or complicated, involving any or all of the functions appertaining to the glandular apparatus, to the cellular texture, or to the mucous and cutaneous surfaces, there the article whose powers had been so signally exhibited, was believed to be indicated, and it was prescribed with effects, which, though anticipated by the argument adduced, could not but excite surprise from time to time, as the doses administered were more and more reduced.

A fourth case of pulmonary disease, a mulatto woman, suffering under a severe form of bronchial phthisis, came under my treatment in May, 1832; and in despite of intemperate habits, in the course of the summer terminated in recovery.

On the 31st of May, the *same remedy*, in my practice, was prescribed for a case of *purulent ophthalmia* of several months standing, in a child four or five years of age, just removed by her mother from the Alms-house, where the disease continued prevalent: on the 1st of June for two cases of *dyspepsia*, the one with habitual torpor of the liver and constipation, and the other with the symptoms of *spinal irritation*; on the 3d, for *dyspepsia* with *amenorrhœa*, *leucorrhœa*, and *œdema* of a lower extremity; and on the 11th of the same month for *hepatalgia*, which had more than two weeks withstood the treatment repeatedly successful in former attacks—attacks that with this patient were premunitory of acute hepatitis.

The cholera, soon afterwards absorbing every minor interest, and modifying every minor disease, the employment of this agent was in a great degree suspended. Notwithstanding its powers as developed

seemed almost specifically adapted to the prominent symptoms of this formidable epidemic, yet, early convinced of the efficacy of other means already extensively tested, the writer did not feel authorized, in a disease so rapidly fatal, to attempt an untried experiment, which might prove the destruction of a fellow being. Accordingly, its trial was restricted to a few cases in the earliest period of premonitory diarrhoea, equally manageable by many other means. Hence, whether it is destined to take high rank among the numerous remedies for cholera, is still a problem for some more adventurous experimentalist to solve.

In the following month of December its effects in a case of (pleuro) pneumonia, and at a later period as exhibited by a friend in ascites with anasarca, went far to prove that the functions of the serous tissues, (so closely allied to those of the cellular,) were not less subject to the controul of this all-pervading alterative.

The results of these several cases were so many additional arguments in support of the conclusions alluded to, and inspired a faith in the extensive application of the medicine, which though occasionally disappointed, has from month to month been steadily augmenting and gaining new proselytes, as experience by degrees unfolded the circumstances which should controul its administration.

Many of these controlling circumstances will be found in the following detail of symptoms induced by its excessive action, comprehending as it does, all the morbid effects in different combinations hitherto observed in a great variety of constitutions, temperaments, diseases and modes of administration.

1. A peculiar dull pain pervading the head in the region of the os frontis—this if considerable being often accompanied by—2. Vertigo; and 3. General languor and restlessness, little exertion fatiguing even to faintness, and sometimes attended by—4. A somewhat sharp pain in the eyeballs, with great heaviness of the lids. 5. Dryness and heat of the mouth and fauces, at times amounting to soreness, (especially of the tongue,) as if they have been scalded. 6. Tongue reddened at the tip and edges, and if the medicine be continued, over the whole surface. 7. The teeth at their roots, (when the jaws are pressed together,) and the gums are unusually tender, the latter being reddened, as in the incipient stage of pyalism. 8. Herpetic eruption upon the face, the neck, the trunk or upper extremities. 9. Dyspnoea, with a feeling as if the expansion of the chest were restricted as in the early stage of cholera. 10. Uneasiness of the stomach sometimes amounting to nausea and even vomiting, occurring

at intervals. 11. Tormina, or in some instances paroxysms of lancinating pain in the bowels, these often attended by—12. Bilious diarrhœa, and if this be kept up, by—13. Muco-sanguineous discharges with tenesmus, and 14. Hæmorrhoidal tumours, or partial protrusion of the rectum. 15. Pulse reduced in frequency, but with an occasional intermission and double beat. 16. Pulse excited, resembling that of mercurial irritation, and in some cases having an occasional double beat; the skin under this excitement being dry and heated. This state, on suspending the medicine, is usually followed within twenty-four hours by proportional reduction and softness of the pulse, and a corresponding state of the skin.

Multiplied observations have concurred to show that these morbid effects have been less frequently encountered, and if produced have been less durable in proportion as the doses have been reduced; whilst the sanative influence of the remedy, so far from being diminished in the same ratio, in many instances has appeared to depend upon carefully avoiding its excessive activity. Furthermore, acute disease demanding from remedies an intensity of action not called for in chronic—as the cases have been more acute, the multiplication of small doses has much more efficiently answered this indication, than any single dose proportionately augmented.

Hitherto the experience with this preparation has in a great measure been confined to chronic disease—in many of its gravest and in some of its most invincible forms. Its effects however in several cases of acute inflammation, particularly of the throat and of the chest, hold out flattering promises of important aid from it in the management of a class of diseases which too often bid defiance to the lancet, sustained by every adjuvant of the existing materia medica.

Besides numerous forms of disease in which its ascertained powers seem palpably to indicate its use, but in which they are yet unproved, the annexed list exhibits those in which experience has verified its salutary influence. Those marked (A) are such affections as uniform observation has proved to have more readily yielded, or to have been more promptly benefited under its operation alone than under any other known treatment. Those marked (B) experience, (too limited to authorize assurance,) indicates as probably no less under its control than the preceding class. The two diseases marked (C) have both been successfully treated with this article in several instances. But from these few examples, it is believed that other means are to be preferred, excepting when these affections occur in serofulous habits.

DISEASES.

OF THE CHEST.

<i>Chronic bronchitis</i>	- - - - - A
<i>Whooping-cough</i>	- - - - - A
<i>Peripneumonia</i>	- - - - - B
<i>Pleuritis</i>	- - - - - B
<i>Phthisis</i>	- - - - - A
<i>Hæmoptysis</i>	- - - - - B

OF THE DIGESTIVE ORGANS.

<i>Aphthæ</i>	- - - - - A
<i>Tonsillitis</i>	- - - - - A
<i>Pharyngitis</i>	- - - - - A
<i>Chronic gastro-enteritis</i>	- - - - - A
<i>Colitis</i>	- - - - - A
<i>Constipation</i>	- - - - - A
<i>Dyspepsia</i>	- - - - - A
<i>Hæmorrhoids</i>	- - - - - B
<i>Intestinal worms</i>	- - - - - B
<i>Hepatitis</i>	- - - - - B
<i>Peritonitis</i>	- - - - - B
<i>Ascites</i>	- - - - - A

OF THE GENITO-URINARY ORGANS.

<i>Nephritis</i>	- - - - - B
<i>Lithiasis</i>	- - - - - A

<i>Diabetes</i>	- - - - - A
<i>Menorrhagia</i>	- - - - - A
<i>Amenorrhœa</i>	- - - - - A
<i>Leucorrhœa</i>	- - - - - A
<i>Gonorrhœa</i>	- - - - - C
<i>Gleet</i>	- - - - - B

OF THE SKIN.

<i>Chronic eczema</i>	- - - - - B
<i>Herpes</i>	- - - - - A
<i>Psora</i>	- - - - - A
<i>Porrigo</i>	- - - - - B
<i>Leprosy</i>	- - - - - B
<i>Psoriasis</i>	- - - - - A

OF THE CELLULAR TISSUE.

<i>Anasarca</i>	- - - - - A
<i>Ulceration</i>	- - - - - A

OTHER DISEASES.

<i>Purulent ophthalmia</i>	- - - - - A
<i>Carcinoma</i>	- - - - - B
<i>Syphilis</i>	- - - - - C
<i>Scrofula</i>	- - - - - A

The treatment of the affections designated in italics has been marked with a success as unexpected to the patient, as gratifying to the physician. Several cases of carcinoma are now under treatment. Of these all but one have recently commenced the use of the remedy, and that one, a case of scirrhus, evinces the most satisfactory improvement.

If this wide range of disease, alarm the incredulity of the cautious practitioner, perhaps his faith may be revived when he shall call to mind, not the fabled virtues of a panacea too often practically assigned to mercurials, but the *well-authenticated facts*, showing the unrivalled efficacy in a long catalogue of diseases, of the several elements here associated in chemical combination. So far then from shaking his confidence, should not this consideration rather urge him to subject to the test of clinical experiment the remedial powers of the article, and determine for himself its real value as a therapeutical agent.

That an instrument of such potency will be exposed to the abuses incidental to ignorance and empiricism, is sufficiently indicated by the history of tartarized antimony, of quinine, and of every valuable accession to the materia medica. But the mischief wrought by such

weapons in the hands of the charlatan, will never deter the scientific physician, whose skill knows how to wield them efficiently in behalf of suffering humanity.

The writer cannot forego this opportunity to tender his acknowledgments to Drs. MACNEVIN, MOTT, VANDERBUGH, WILSON, MASON, BORROWE, and WALLACE, of New York, and to Dr. JACKSON of Philadelphia, for their aid in proving the powers of the article the subject of this paper. Some of these gentlemen, within the last few months, have used this medicine extensively in their practice, and fully concur in the writer's views respecting its wide application to disease, as well as its mode of administration.

New York, December 50th, 1833.

ART. XI. *Note of the Post Mortem Examination of a Female who committed Suicide almost immediately after Coitus.* By H. BOND, M. D. of Philadelphia.

IN May, 1827, I was invited by Dr. SAMUEL TUCKER to examine, *post mortem*, the body of a female who had destroyed herself with laudanum. She was apparently between eighteen and twenty years of age, well-formed, and in good health. She passed a night, or the most of it, in *coitu* with a young man, and before morning swallowed a large quantity of laudanum. Dr. Tucker was called to her in the course of the morning, but so late that all his efforts to restore her were ineffectual. The body was opened the next morning in the presence of Doctors TUCKER and MEIGS. Neither the head nor chest were opened. The viscera of the abdomen, as far as they were examined, exhibited no mark of disease, but the odour of laudanum was very strong in the stomach. I removed the internal organs of generation, and took them home for examination.

The uterus was larger than I had ever before seen it when healthy and unimpregnated, and its colour indicated more vascularity. The ovaries were large, extremely vascular, and situated nearer the uterus than usual. Instead of hanging loose at the distance of an inch or more, they appeared to be drawn so close to the sides of the uterus, that there was scarcely the space of a quarter of an inch between them. The Fallopian tubes were very vascular, so much so as to give them a firmer and more fleshy appearance than usual, and instead of ending in loose, floating fimbriæ, appeared to terminate by an